



Modification of bare nominals across languages and constructions

Stavroula Alexandropoulou, Maartje Schulpen & Henriëtte de Swart

(UiL-OTS, Utrecht University)

The Syntax and Semantics of Pseudo-Incorporation

14-03-13



+ Outline

- Introduction
- Corpus research
- Questionnaire
- Discussion



+ Outline

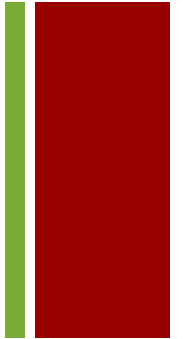


- Introduction
- Corpus research
- Questionnaire
- Discussion



Introduction

modification (Espinal 2010)



- Spanish/Catalan BNs can only combine with kind-level modifiers:

(2) Per a aquest espectacle necessitareu faldilla llarga/escocesa/de quadres.
for to this event need-FUT skirt **long / scottish / plaid**
'For this event you will need a long skirt/a kilt/a plaid skirt.' (Catalan)

- Combinations of BNs with qualitative and descriptive modifiers are generally unaccepted, because they modify individual entities:

(3) *Necessiten faldilla feta a Singapur / neta.
need skirt **made in Singapore / clean** skirt (Catalan)

- More support for an NP-level analysis, since kind-level modification is closest to the noun (Scott 2002; McNally & Boleda 2004)



Introduction

Hindi BNs

Dayal (2011): property-denoting BNs (pseudo-incorporated BSs) are semantically singular. So they project a NumP;

(4) Anu-ne tiin ghanTe meN kitaab paRhii

Anu.ERG 3 hours in book read.PFV

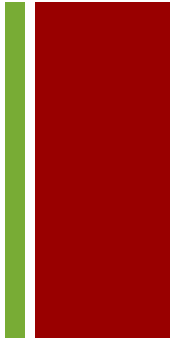
'Anu read a book in three hours.' = exactly one book

- They *only* yield a number neutral interpretation when interacting with aspectual operators (i.e. Iterativity, habituality);

(5) Anu kutta paaltii hai

Anu dog keep.IMP be.PRS

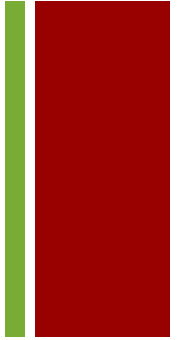
'Anu keeps (as pets) dogs.'





Introduction

modification (Dayal 2011)



- Less restrictions on modification of BNs in Hindi:

(6) anu apne beTe ke-liye bahut sundar / paRhii-likhii laRkii DhuunDh
Anu self's son for very **beautiful educated** girl search
rahii hai

PROG be-PRS

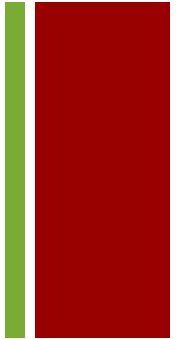
'Anu is looking for a very beautiful/ educated girl for her son.'

- This is additional support for a NumP analysis.



Introduction

BNs in Greek



Greek also has property-denoting BNs as complements of *have*-verbs (Lazaridou-Chatzigoga 2011, Alexandropoulou 2013). However, they don't seem to be number neutral:

(7) psahno/ eho dhyamerisma' ena stin Kalamata/
am.looking/look.1SG.for/ have.1SG apartment one in.the Kalamata
#ena stin Kalamata ke ena stin Athina.
one in.the Kalamata and one in.the Athens
'I'm looking for/ have an apartment; one in Kalamata/ #one in Kalamata
and one in Athens.'

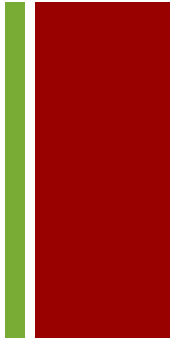
- Seems to be support for a NumP-level status



Introduction

Parallel between *have*-verbs and *have*-Ps

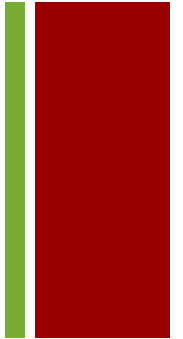
- Dutch does not have BNs as complements of *have*-verbs. But it does have them as complements of the *have*-preposition *met* ('with').
- Borthen (2003): both the preposition *med* 'with' and *have*-verbs allow for BN complements in Norwegian. She notes that these constructions are very similar in meaning and suggests that *med* also introduces a *have*-relation
- de Swart (2012) formalizes this intuition by extending Espinal & McNally's (2011) analysis of *have*-verbs to *have*-prepositions with/without.





Introduction

Parallel between *have*-verbs and *have*-Ps



Lexical rule suppressing the theme of the *have*-verb (Espinal & McNally 2011):

(8) **Input:** $\lambda y \lambda e [V(e) \wedge \theta(e)=y \wedge \exists w [C(w)] [\exists e' [\mathbf{depend}(e,e',w) \wedge \mathbf{have}(e') \wedge \mathbf{havee}(e')=y]]]$

Output: $\lambda e [V(e) \wedge \exists w [C(w)] [\exists e' [\mathbf{depend}(e,e',w) \wedge \mathbf{have}(e') \wedge \mathbf{havee}(e')=\theta(e)]]]$

Extension to *with*, suppressing the theme argument of the Accompany relation it denotes (de Swart 2012):

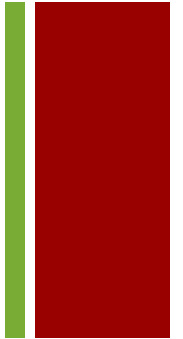
(9) **Input:** $\lambda y \lambda P \lambda x [P(x) \wedge \exists e [\mathbf{Accompany}(e) \wedge \text{Ext}(e) = x \wedge \text{Int}(e) = y \wedge \exists w [C(w)] [\exists e' [\mathbf{Depend}(e,e',w) \wedge \mathbf{Have}(e') \wedge \mathbf{Havee}(e') = y]]]]]$

Output: $\lambda P \lambda x [P(x) \wedge \exists e [\mathbf{Accompany}(e) \wedge \text{Ext}(e) = x \wedge \exists w [C(w)] [\exists e' \mathbf{Depend}(e,e',w) \wedge \mathbf{Have}(e') \wedge \mathbf{Havee}(e') = \text{Int}(e)]]]$



Introduction

BNs in Dutch – *have-P*



Dutch BNs as complements of *met* ‘with’ don’t seem to be number neutral either:

- (10) Ik ken een ex-dakloze met appartement. Eén in Amsterdam./
I know an ex-homeless with apartment one in Amsterdam
#Eén in Amsterdam en één in Weert.
one in Amsterdam and one in Weert
‘I know somebody who used to be homeless, but now has an
apartment. (It’s) one in Amsterdam./ #One in Amsterdam and one
in Weert’

- Again: seems to be support for NumP status.



Intoduction

summing up

- Spanish/Catalan: arguments for NP-level status of BNs.
 - Hindi: arguments for NumP-level status of BNs.
 - Greek/Dutch: indications for NumP-level status of BNs (only based on number neutrality data).
- Number neutrality is a tricky diagnostic, so let's also look at modification data.



+ Outline

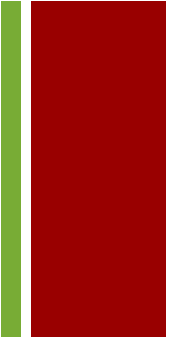


- Introduction
- Corpus research
- Questionnaire
- Discussion

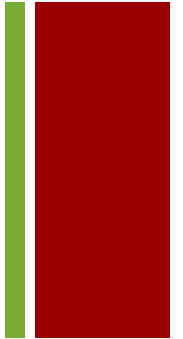
+ Corpus research

aim

- Collect BN modification data for Greek and Dutch.
- See if they pattern with Spanish/Catalan or with Hindi.



+ Corpus research method



Dutch (Eindhovencorpus VU-versie 768.000 words, Corpus Gesproken Nederlands 9.000.000 words)

- *met* ('with') + [adjective] + [singular count noun]

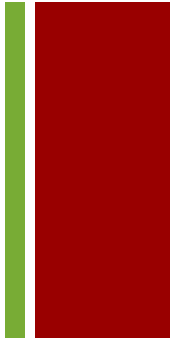
Greek (Hellenic National Corpus 47.000.000 words)

- *me* ('with') + [adjective] + [singular count noun]

- *eho* ('to have') " "
- *forao* ('to wear') " "
- *kratao* ('to hold') " "
- *hrisimopio* ('to use') " "



Corpus research results

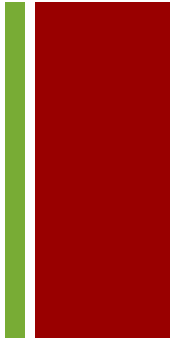


	Greek <i>have-</i> verbs	Greek <i>me</i>	Dutch <i>met</i>
Kind-level	53 (42%)	34 (54%)	20 (29%)
Not kind-level	73 (58%)	29 (46%)	48 (71%)
Total	126 (100%)	63 (100%)	68 (100%)



Corpus research

results



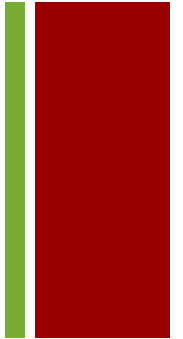
Kind-level modification:

- | | |
|--|------------------------|
| (11) gouverneur met houten been
'governor with a wooden leg' | (Dutch) |
| (12) foraghe palestiniako madili
's/he was wearing a Palestinian bandana' | (Greek <i>have-V</i>) |
| (13) mia morfi me arheoeliniko hitona
'a figure with an ancient Greek chiton' | (Greek <i>have-P</i>) |



Corpus research

results



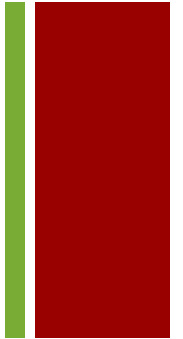
Not kind-level modification:

- (14) z'n bureaulamp met groene kap (Dutch)
'his desk lamp with a green shade'
- (15) foruse anihtohromi kabardina (Greek *have-V*)
's/he was wearing a light-coloured trench coat'
- (16) enas nearos me aspri podhya (Greek *have-P*)
'a young man with a white apron'



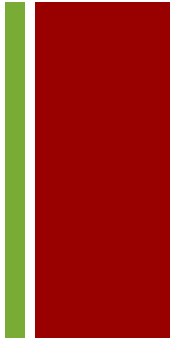
Corpus research

conclusion



- So the Spanish/Catalan modification pattern doesn't cover all of the Greek and Dutch data.
 - Most of the not kind-level cases involved individual-level modification (mostly color, material).
 - Not a lot of data points.
- Results should be confirmed through a questionnaire (more data, controlled conditions).

+ Outline

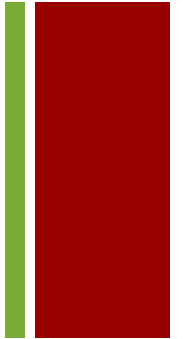


- Introduction
- Corpus research
- Questionnaire
- Discussion



Questionnaire

overall idea



2 languages:

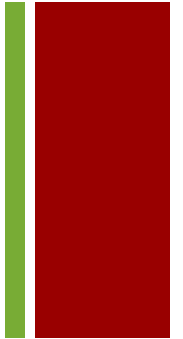
- Dutch, Greek

2 constructions:

- *Have*-verbs (Greek)
- *Have*-prepositions (Dutch and Greek)



Questionnaire design



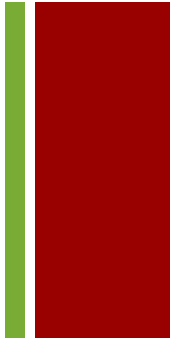
5 conditions (1x5 design):

- Unmodified (baseline)
- Stage-level modification (unacceptable in Spa/Cat)
- Evaluative adjectives (acceptable in Hindi, another type of ind.-level)
- Color modification (based on corpus findings)
- Kind-level modification (obviously)



Questionnaire

design



A. What do you see on the picture?

B. I see a politician with / who's wearing

vest	(unmodified)
dirty vest	(stage-level)
nice vest	(evaluative)
pink vest	(color)
bulletproof vest	(kind-level)

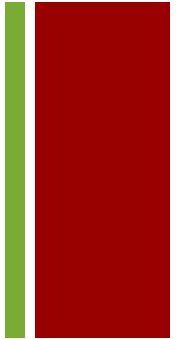
How acceptable do you find the sentence uttered by B?

(unacceptable) 0 – 1 – 2 – 3 – 4 – 5 – 6 – 7 (acceptable)



Questionnaire

design

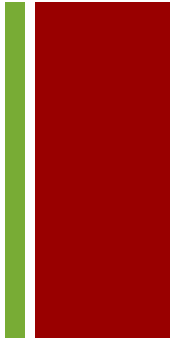


- 15 test items that appeared in 5 conditions.
- 15 fillers, 6 acceptable ones (upper bound) and 9 unacceptable ones (lower bound).
- 5 lists (each in two orders), 30 items in total per list.
- Dutch: pen-and-paper questionnaire filled in by 116 native speakers.
Greek: online questionnaire filled in by 171 native speakers.



Questionnaire

design



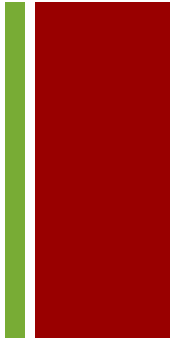
- Good fillers: *have*-predicate + mass nouns

(17) I see a cook with/who's holding fresh spinach.

- Bad fillers: *have*-predicate + mass nouns with numerals

(18) I see a mechanic with/who's carrying four smelly garbage.

+ Predictions



1. The unmodified items should not be significantly different from the good fillers (upper baseline).
2. The kind-level items should not be significantly different from the unmodified items.

Spanish/Catalan pattern:

3. All the other conditions *should not* be significantly different from the bad fillers (lower baseline).

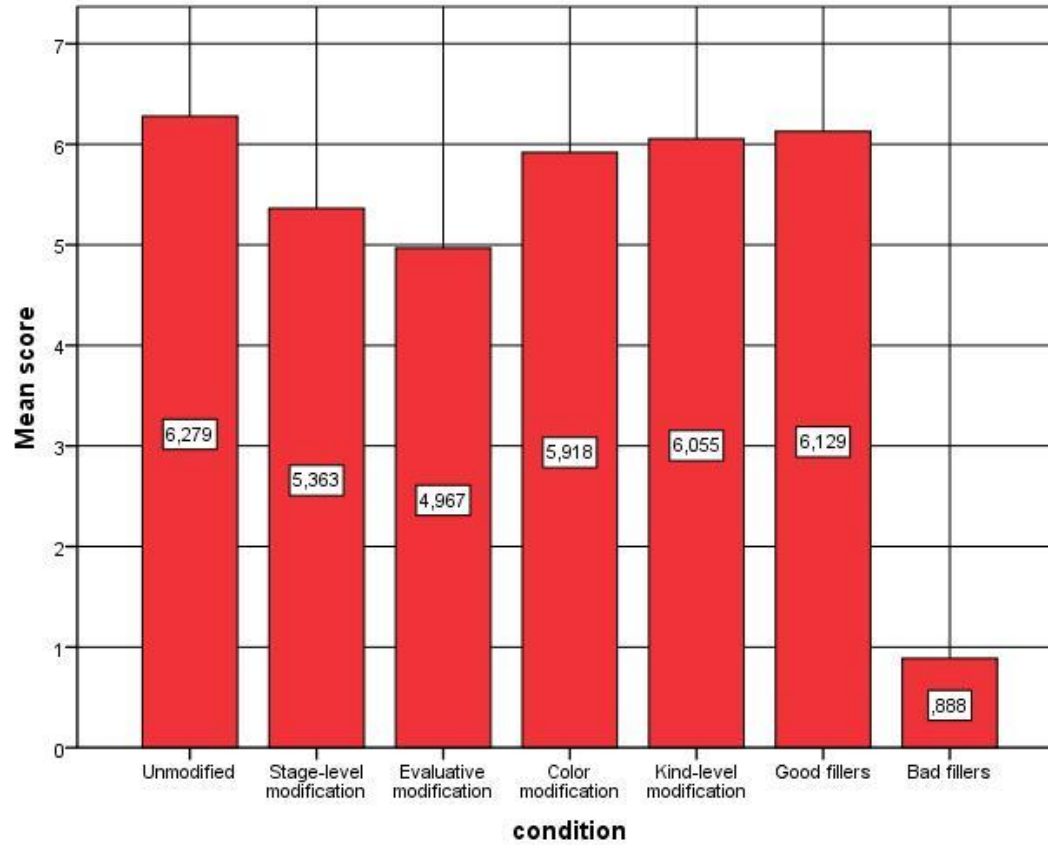
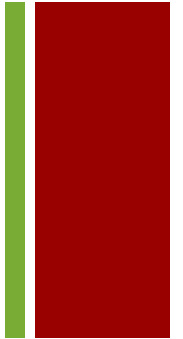
Hindi pattern:

3. All other conditions *should* be significantly different from the bad fillers (lower baseline).



Questionnaire

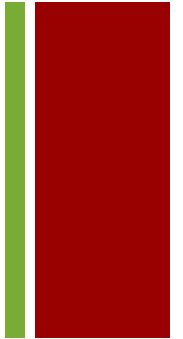
results Greek *have*-verbs





Questionnaire

results Greek *have*-verbs



1. ✓ The unmodified items should not be significantly different from the good fillers (upper baseline).
2. ✓ The kind-level items should not be significantly different from the unmodified items.

Spanish/Catalan pattern:

3. ✗ All the other conditions *should not* be significantly different from the bad fillers (lower baseline).

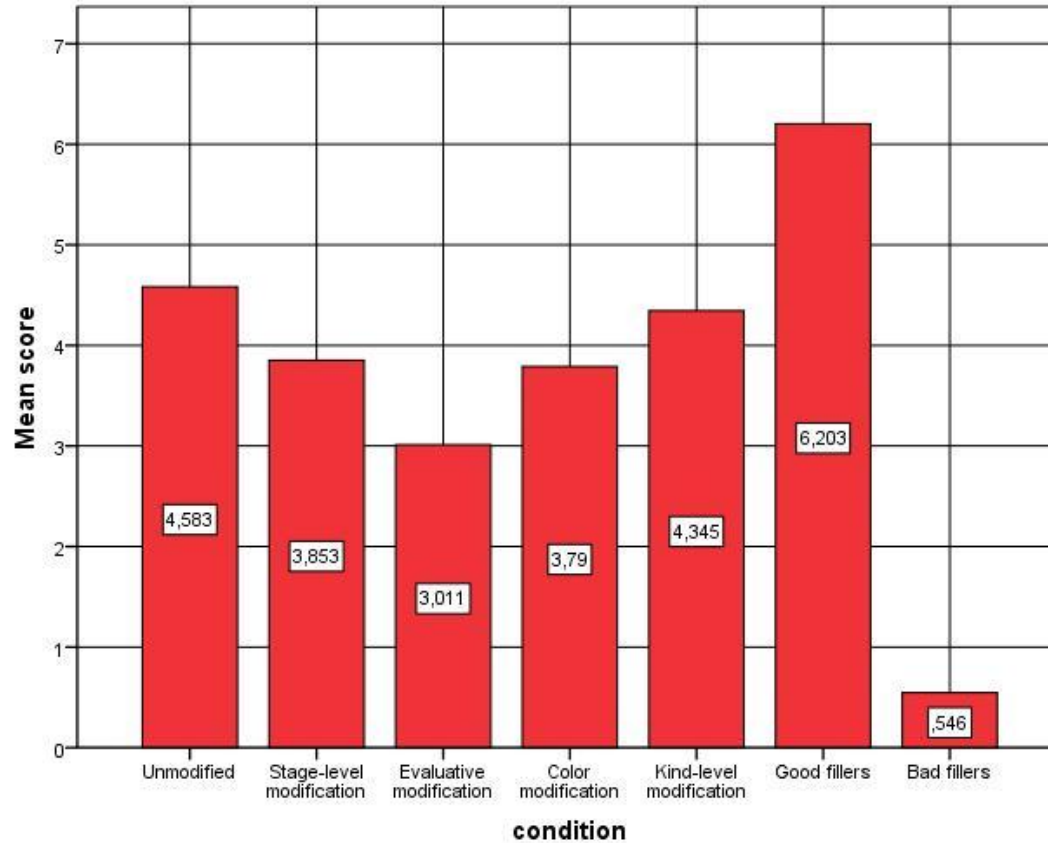
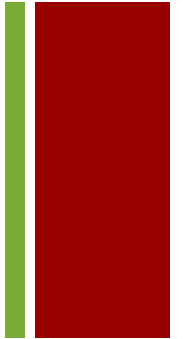
Hindi pattern:

3. ✓ All other conditions *should* be significantly different from the bad fillers (lower baseline).



Questionnaire

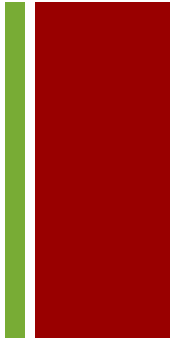
results Dutch *met*





Questionnaire

results Dutch *met*



1. ✗ The unmodified items should not be significantly different from the good fillers (upper baseline).
2. ✓ The kind-level items should not be significantly different from the unmodified items.

Spanish/Catalan pattern:

3. ✗ All the other conditions *should not* be significantly different from the bad fillers (lower baseline).

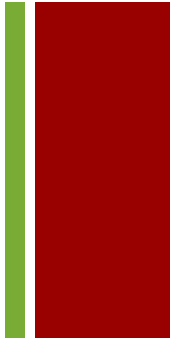
Hindi pattern:

3. ✓ All other conditions *should* be significantly different from the bad fillers (lower baseline).



Questionnaire

summing up



- In both Greek and Dutch there was no significant difference between kind-level items and unmodified items.
- Furthermore, both in Greek and Dutch the other conditions also scored significantly higher than the bad fillers.
- for these BNs a wider range of modification is allowed, in line with the Hindi pattern. From this and the number neutrality facts, we conclude that Greek and Dutch BNs are NumPs, not NPs.
- Issues:
 - Differences between the Greek and Dutch data.
 - Differences that we found between conditions.

+ Outline

- Introduction
- Corpus research
- Questionnaire
- Discussion



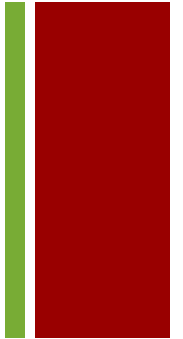


Discussion

difference between Greek and Dutch

- The fact that the unmodified items scored significantly lower than the good fillers in Dutch suggests that the *met* BN construction is a bit marginal.
 - It could also be that *have-verb*+BN constructions aren't completely similar to *have-preposition*+BN constructions after all.
- Data on Greek *me* 'with' are crucial to decide between these two possibilities.

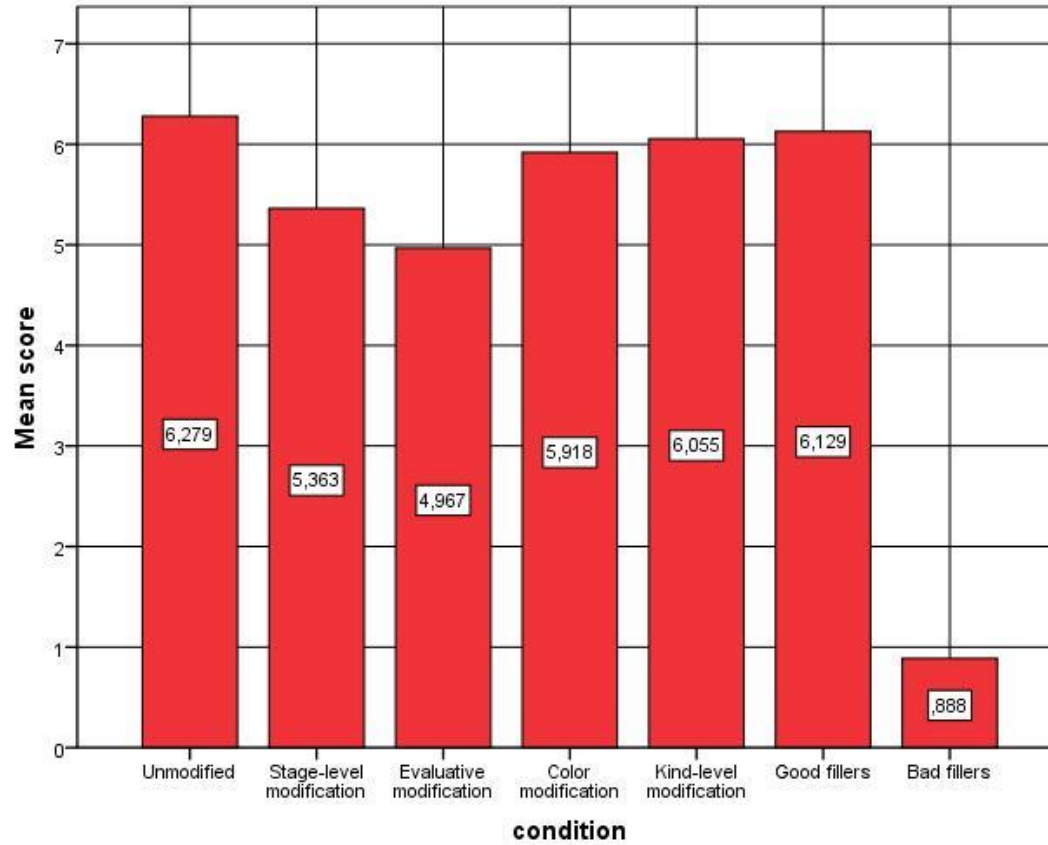
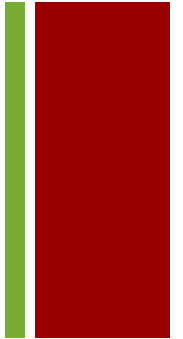
Focus on the Greek data for the rest of the discussion.





Questionnaire

results Greek *have*-verbs





Discussion

difference between conditions (Greek)



kind, color > stage-level, evaluative (and unmodified > color)

- We suggest that these are due to the characterizing property constraint posited by Espinal & McNally (2011) for Spanish/Catalan:

In the context of use, the resulting verb phrase should denote a ‘characterizing property’ of the external argument. I.e. in this context it should be relevant whether or not an individual has the property in question.



Discussion

difference between conditions (Greek)

- So why are kind-level and color adjectives equally OK, and significantly better than evaluatives and stage-levels?
 - Kind-level: intuitively easy to be part of a characterizing property because distinguishing subkinds is often relevant.
 - Color: perceptually/cognitively very salient (Sedivy 2003), and therefore, also relevant.
- Since the characterizing property constraint holds for Greek, our data pattern with Spanish/Catalan rather than Hindi (for which the 'prototypicality requirement' holds).





Future work

extending questionnaire to Spanish/Catalan

informal judgments wrt modification:

(19) Veo a una muchacha que lleva falda roja/rosa. (Spanish)
'I see a girl who's wearing a red/pink skirt.'

informal judgments wrt number neutrality:

(20) Veig una noia que du anell. (Catalan)

a. De diamants.

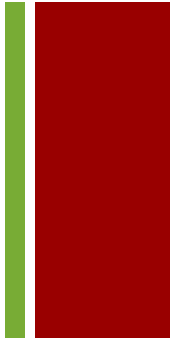
'I see a girl who's wearing a ring. A diamond one.'

b. #Un de diamants i un d'or.

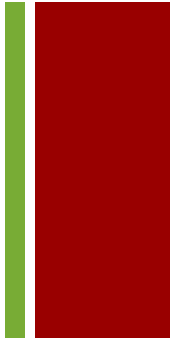
'A diamond one and a gold one.'

c. #Un al polze i un al dit del mig.

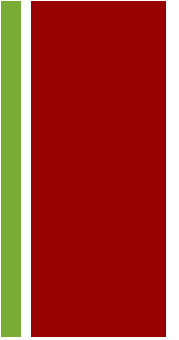
'One on her thumb and one on her middle finger.'



+ Concluding remarks



- Dutch data: unclear if the *met*+BN construction is slightly marginal or if the parallel between *have*-verbs and *have*-prepositions needs to be reconsidered.
- Greek *have*-verb data: mixture of Dayal's analysis (the fact that they're NumPs) and Espinal & McNally's analysis (the fact that the characterizing property constraint seems to hold).
- Future work:
 - Greek *me* 'with' data
 - Catalan *have*-verb (and *have*-preposition) data
 - ...

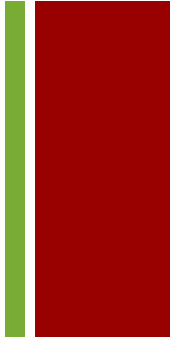


Thank you!

(Thanks to NWO, Utrecht University, the Glif group at UPF, EliTu audience, Ileana Grama, Loes Koring, Marijana Marelj, Koen Sebregts, Melita Stavrou, all our informants!)



References



Alexandropoulou, S. (2013). *The lexical restrictions on verbs taking bare nominal complements in Greek: Empirical evidence and implications for an analysis*. MA thesis, Utrecht University.

Borthen, K. (2003). *Norwegian Bare Singulars*. PhD dissertation, Norwegian University of Science and Technology.

Dayal, V. (2011). Hindi pseudo-incorporation. *Natural Language and Linguistic Theory* 29(1): 123-167.

Espinal, M.T. (2010). Bare nominals in Catalan and Spanish. Their structure and meaning. *Lingua*, 120(4): 984-1009.

Espinal, M.T. & McNally, L. (2011). Bare nominals and incorporating verbs in Spanish and Catalan. *Journal of Linguistics* 47(1): 87-128.

Lazaridou-Chatzigoga, D. (2011). The distribution and interpretation of bare singular count nouns in Greek. Workshop on Weak Referentiality, Uil-OTS, Utrecht.

McNally, L. & Boleda, G. (2004). Relational adjectives as properties of kinds. *Empirical issues in formal syntax and semantics* 5: 179-196.

Sedivy, J. (2003). Pragmatic versus form-based accounts of referential contrast: Evidence for effects of informativity expectations. *Journal of psycholinguistic research*, 32(1), 3-23.

Scott, G.J. (2002). Stacked adjectival modification and the structure of nominal phrases. In Cinque, G., (ed.), *Functional structure in DP and IP. The cartography of syntactic structures*, 91-120. New York: Oxford University Press.

de Swart, H. (2012). *Constructions with and without articles*. Paper presented at the workshop 'Languages with and without articles', Paris 8.